

Chinese Patent Application No. 01807271.2

Translated by Jeekai & Partners

[The State Intellectual Property Office, the People's Republic of China]

[51] Int.Cl<sup>6</sup>  
E04F 13/10

## [12] Specification of Utility Model Patent

[21] ZL Patent No. 96233739.0

[45] Date of Registration Announcement:  
May 13, 1998

[11] No. of Registration Announcement:  
CN 2281378Y

[22] Filing Date of Application: Sep. 13, 1996

[21] Application No.: 96233739.0

[73] Patentee: Lu Jie

[74] Patent Agency: Zhongya Patent Office,  
Sichuan Province

Address: No. 91, Dongsanduan of Ring  
Road 1, Chengdu, Sichuan Province

Agent: Feng Yigao

[72] Designers: Lu Jie, Lu Hui, Luning

Claims: 1 page  
Description: 4 pages  
Drawings: 2 pages

[54] Title of the Utility Model: Wood Decoration Board

[57] Abstract

The application relates to a building sheet for decoration, which adopts a polywood as the backerboard and thin wood sheets as the facings. The facings and backerboard, being same in thick, are adhered together and then hot pressed to form the building sheet. There are 3~5mm clearances or 60° triangular grooves among the facings for placement of fasteners. The utility model can be widely applied to decorating interior walls, ceilings, pillars, doors, wainscots and the like. The utility model has a natural wood appearance, low thermal expansion, low deformation, long service life, low cost, convenience for use, time saving and wide range of applications.

### Claims

1. A wood sheet for decoration which is formed by pressing a backerboard and facings together, characterized in that: the wood facings, which are adhered on a polywood as the backerboard, has the same thickness as the backerboard; and there are 3~5mm clearances or 60° triangular grooves for placement of fasteners among the facings.
2. The sheet of claim 1, characterized by: the adhesive applied is a urea formaldehyde resin.
3. The sheet of claim 1, characterized by: the facings are coated by resin protective layers.

### **A Wood Building Sheet for Decoration**

The utility model relates to a building sheet for decoration.

The decoration materials currently used in the decoration industry and furniture decoration are generally 3~5mm man-made veneer boards, polywood sheets and teakwood sheets. Those materials give people an obsolete feeling since they first presented in the market a quite long time ago, and have short service life while lack of beauty. Particularly for the 3~5mm man-made veneer boards that are in massive production and wide use today, and formed by hot pressing the single sheets which are veneered from logs together, they can not present the effect of truly natural wood.

One of the purposes of the utility model is to provide a new product that combines the advantages of low thermal expansion found in the traditional veneer boards, and the aesthetical effect of natural wood presented by the modern decoration material.

One of the technical solution of the utility model is implemented by the following technical means: provide a backerboard, which comprises 3~7mm veneer sheet of low thermal expansion made of ordinary wood or wood board, a fiber board, a bamboo board (glued bamboo board), and a flake-board ; and provide facings on one side of the backerboard, hot press and adhere them together OR press and adhere them together at room temperature, the facings are sawed and dried natural wood boards of the same thickness. The wood decoration board made according to this embodiment has the advantages of presenting natural wood feelings with low thermal expansion, low deformation, enhanced strength, advanced quality and prolonged service life. So it can reduce cost and adapt to wide range of applications.

The utility model is implemented in such a way: first, sawing various of logs or beam timbers into thin sheets of the wanted size as the facings, the sheets are then dried after planed one side and edges. The sheets can be dried by steaming or naturally airing. Afterwards, the backerboard can be selected as required. The backerboard can be a man-made veneer board generally having 3, 5 or 7 layers. Usually, a 3-layered board is selected. The facings will be placed with their unplanned surfaces attaching the surface of the veneer board which has been applied adhesive (such as urea formaldehyde resin), and then be sent for hot press. 3~5mm clearances are reserved among the facings on the veneer board for placement of fasteners. Alternatively, each of the wood facings can be chamfered into 30° angles along its longer sides, so 60° triangular grooves will be formed up among the adjacent facings for placement of fasteners in hot pressing.

According to the utility model, when a veneer board having 5 or more layers is adopted as the backerboard to make a wood decoration board by hot pressing it with adhered facings, the decoration board can be splined on both sides along the facing's timber grains for joint of the boards.

The following is the further explanation for the utility model with the help of the

attached figures:

Fig. 1 shows a structure illustration of the utility model's sectional view.

Fig. 2 is a layout illustration of the facings of different width.

Fig. 3 is a structure illustration of the utility model's triangular groove sectional view.

Fig. 4 is a layout illustration of the utility model's facing with triangular grooves.

Fig. 5 is a structure illustration of the utility model's sectional view with both sides spined.

In the figures, a facing is numbered as 1, a backerboard is numbered as 2, adhesive is numbered as 3, and a groove for placement of fasteners is numbered as 4.

The facings of the utility model can be manufactured with 400~600mm long and 50~1300mm wide timbers. Its thickness may be in the range of 3~7mm. The backerboard may be a veneer board of 3, 5 or 7 layers, generally a 3-layer board made from common wood will be exploited as the backerboard. The facings and the backerboard are same thick so as to prevent deformation.

The decoration boards made according to the utility model are usually wood boards being 2500mm long and 1300mm wide. The facings placed on the backerboard can have either the same or different width, hot pressed with the backerboard. Or the facings can be made into different length and width as required (for example, they are generally slim rectangular for the wainscots and wide rectangular for the walls.)

Embodiment 1 is shown in Figs. 1 and 2. The backerboard 2 is a 3-layer board, and the facings 1 are made of natural wood with different sizes, the adhesive 2 is a urea formaldehyde resin. The backerboard and the facings are adhered and then hot pressed together. There are 3~5mm clearances reserved among the natural wood facings for placement of fasteners.

Embodiment 2 is shown in Figs. 3 and 4. It adopts natural wood facings 1 adhered evenly on backerboard 2. Both sides of the facings are chamfered 30°. The facings abutted to each other tightly to form 60° triangle-shaped grooves for placement of fasteners.

Embodiment 3 is shown in Fig. 5. This embodiment is mainly applied at the places requiring thick natural wood decoration boards, such as pillars and wainscots. The boards can be assembled with each other utilizing the splines made on both of their sides.

After mounted to the places as desired for decoration, the utility model can be sprayed on brushed on the surface a layer of transparent varnish for protection. Or alternatively, it can be coated with a layer of unsaturated polyester resin as protective layer, which can both polishers the surface and action for moisture-proof.

The utility model is mainly applied for decoration of internal walls, ceilings, pillars and wainscots as well as some other cases. It has the advantages to present the effects of natural timber with low thermal expansion, low deformation, long service life, low cost, convenience for use, time saving and wide range of applications.